



Green Building Fact Sheet: November 2004

The annual market for green building in products and services is \$5.8 billion, representing 34% growth over the prior year (based on 2003 figures).

U.S. Green Building Council:

Membership

- 5300 member organizations, including corporations, governmental agencies, and nonprofits.
- USGBC's membership has grown by 1000% in the past four years.

LEED Green Building Rating System™

- LEED for new construction (LEED-NC) was first released in 2000
- New LEED rating systems addressing Commercial Interiors (LEED-CI) and Existing Buildings (LEED-EB) are in pilot and will be released in 2004
- 195 million square feet of commercial building space has been registered or certified under LEED
- A total of 1,619 registered building projects are currently LEED-registered, and an additional 148 have completed certification
- There are LEED projects in all 50 states and 12 countries
- Owners of LEED-registered and certified projects represents a diverse cross-section of the industry.
 - 25% are owned by for-profit corporations
 - 24% are owned by local government
 - 22% are owned by state & federal government
 - 19% are owned by nonprofit organizations.
- Project types of all LEED-registered and certified projects by square footage includes:
 - 25% Mixed use
 - 16% Commercial Office
 - 8% Higher Education
 - 6% K-12

Education & Accreditation

- 19,613 professionals have been trained through LEED workshops
- 18,967 have become LEED Accredited Professionals

Benefits of Green Building: Cost Savings

- *The Costs and Financial Benefits of Green Buildings: A Report to California's Sustainable Building Task Force* dated October 2003 and based on LEED buildings in the State of California states that an upfront investment of 2% in green building design, on average, results in life cycle savings of 20% of the total construction costs – more than ten times the initial investment.
- According to U.S. Environmental Protection Agency (EPA) research, tenants can save about 50 cents per square foot each year through strategies that cut energy use by 30%. This can represent a savings of \$50,000 or more in a five-year lease on 20,000 square feet.
- A study done for the California Board for Energy Efficiency Third Party Program found that sales in stores with skylights were up to 40% higher compared to similar stores without skylights.

Benefits of Green Building: Productivity

- A study by Carnegie Mellon University measuring the relationship between increased lighting control and productivity showed an average increase of 7.1% in productivity.
- Average employee relocation within a building averages 25% annually for most commercial spaces at a cost of about \$2,500 each. Flexible design features often found in integrated green buildings can help cut employee relocation costs by 90%.
- Average annualized costs for personnel amount to \$200 per square foot, compared to \$20 for bricks and mortar costs and \$2 for energy costs.

Benefits of Green Building: Health

- People in the US spend about 90% of their time indoors.
- EPA studies indicate indoor levels of pollutants may be two to five times higher – and occasionally more than 100 times higher – than outdoor levels.

- An investigation of 20 studies with 30,000 subjects found significant associations between low ventilation levels and higher carbon dioxide concentrations – a common symptom in facilities with sick building syndrome.

Size and Impact of the U.S. Built Environment

U.S. Construction market in 2001 (includes all commercial, residential, industrial)

- Represents 20% of U.S. economy
Source: National Institute of Standards and Technology and the National science and Technology Council: Construction Industry Statistics, 1995
- Comprises 12.7% of the \$10 trillion U.S. GDP. (Includes all commercial, residential, and industrial construction)
Source: 2003 U.S. DOE Buildings Energy Databook

Energy consumption

- Buildings represent 39% of U.S. primary energy use (includes fuel input for production)
Source: 2003 U.S. DOE Buildings Energy Databook.

Electricity consumption

- Buildings represent 70% of U.S. consumption
Source: 2003 U.S. DOE Buildings Energy Databook

Water use:

- Buildings use 12.2% of all potable water, or 15 trillion gallons per year
Source: U.S. Geological Service, 1995 data.

Materials use:

- Buildings use 40% of raw materials globally (3 billion tons annually)
Source: Lenssen and Roodman, 1995, "Worldwatch Paper 124: A Building Revolution: How Ecology and Health Concerns are Transforming Construction," Worldwatch Institute.

Waste:

- The EPA estimates that 136 million tons of building-related construction and demolition (C&D) debris was generated in the U.S. in a single year
Source: <http://www.epa.gov/epaoswer/non-hw/debris/about.htm>, and U.S. EPA Characterization of Construction and Demolition Debris in the United States, 1997 Update.
- Compare that to 209.7 million tons of *municipal solid waste* generated in the same year.
Source: U.S. EPA Characterization of Municipal Solid Waste in the United States, 1997 Update. Report No. EPA530-R-98-007